

1 HL/E 1 ATGACACCGACGACGACGACCGCGGAACTCACG 33
 34 HL/E 34 ACGGAGTTTGACTACGACGATGAAGCGACTCCC 66
 67 HL/E 67 TGTGTCCTCACCAGCGTGCTTAATCAGTCGAAG 99
 100 HL/E 100 CCAGTCACGTTGTTTCTGTACGGCGTTGTCTTT 132
 133 HL/E 133 CTCTTCGGTTCCATCGGCAACTTCTTGGTGATC 165
 166 HL/E 166 TTCACCATCACCTGGCGACGTGGGATTCAATGT 198
 199 HL/E 199 TCCGGCGATGTTTACTTTATCAACCTCGCGGCC 231
 232 HL/E 232 GCCGATTTGCTTTTCGTTTGTACACTACCTCTG 264
 265 HL/E 265 TGGATGCAATACCTCCTAGATCACAACCTCCCTA 297
 298 HL/E 298 GCCAGCGTGCCGTGTACGTTACTCACTGCCTGT 330
 331 HL/E 331 TTCTACGTGGCTATGTTTGGCAGTTTGTGTTTT 363
 364 HL/E 364 ATCACGGAGATTGCACTCGATCGCTACTACGCT 396
 397 HL/E 397 ATTGTTTACATGAGATATCGGCCTGTAAAACAG 429
 430 HL/E 430 GCCTGCCTTTTTCAGTATTTTTTGGTGGATCTTT 462
 463 HL/E 463 GCGGTGATCATCGCCATTCCACACTTTATGGTG 495
 496 HL/E 496 GTGACCAAAAAAGACAATCAATGTATGACCGAC 528
 529 HL/E 529 TACGACTACTTAGAGGTCAGTTACCCGATCATC 561
 592 HL/E 592 CTCAACGTAGAACTCATGCTCGGTGCTTTTCGTG 594
 595 HL/E 595 ATCCCGCTCAGTGTATCAGCTACTGCTACTAC 627
 628 HL/E 628 CGCATTTCCAGAATCGTTGCGGTGTCTCAGTCG 660
 661 HL/E 661 CCCCACAAAGGCCGCATTGTACGGGTACTTATA 693
 694 HL/E 694 GCGGTGCTGCTTGTCTTTATCATCTTTTGGCTG 726
 727 HL/E 727 CCGTACCACCTGACGCTGTTTGTGGACACGTTG 759
 760 HL/E 760 AAAGTGTCAAATGGATCTCCAGCAGCTGCGAG 792
 793 HL/E 793 TTCGAAAAATCACTCAAGCGCGCGCTCATCTTG 825
 826 HL/E 826 ACCGAGTCACTCGCCTTTTGTCACTGTTGTCTC 858
 859 HL/E 859 AATCCGCTGCTGTACGTCTTCGTGGGCACCAAG 891
 922 HL/E 922 TTTCCGCAAGAACTGCACTGTCTGCTGGCCGAG 924
 925 HL/E 925 TTTCCGCCAGCGACTGTTTTCCCGCGATGTATCC 957
 958 HL/E 958 TGGTACCACAGCATGAGCTTTTCCGCTCGGAGC 990
 991 HL/E 991 TCGCCGAGCCGAAGAGAGACGTCTTCCGACACG 1023
 1024 HL/E 1024 CTGTCCGACGAGGCGTGTGCGCTCTCAGAAATT 1056
 1057 HL/E 1057 ATACCGTAA 1085

Fig. 1A

VHL/E	1	<u>MTPTTTTAELTTEFDYDDEATPCVLTQV LNQSK</u>	33
VHL/E	34	<u>PVTLEFLYGVVFLFGSIGNFLVIFTITWRRRIQC</u>	66
VHL/E	67	SGDVYFINLAAADLLFVCTLPLWMQYLLDHNSL	99
VHL/E	100	ASVPCTLLTACFYVAMFASLCFITEIALDRYYA	132
VHL/E	133	IVYMRYRPVKQACLFSLFWWIFAVIIAIPHFMV	165
VHL/E	166	VTKKDNQCMTDYDYLEVSYPIILNVELMLGAFV	198
VHL/E	199	IPLSVISYCYRISRIVAVSQSRHKGRIVRVLI	231
VHL/E	232	AVVLVFIIFWLPYHLTLFVDTLKLLKWISSSCE	264
VHL/E	265	FEKSLKRALILTESLAFCHCCLNPLLYVFGTK	297
VHL/E	298	FROELHCLLAEFRQRLFSRDVSWYHSMSFSRRS	330
VHL/E	331	SPSRRETSSDTLSDEACRVSQIIP	364

Fig. 1B

human US28	1	M T P T T	5
rhesus US28.1	1	M	1
rhesus US28.2	1	M T N A	4
rhesus US28.3	1	M T N T	4
rhesus US28.4	1		0
rhesus US28.5	1	M T T T T M S A T T N S S T T P Q A S S T T M T T K T S T P G N	32
human US28	6	- - - - T T A E L T T - - - - -	12
rhesus US28.1	2		1
rhesus US28.2	5		4
rhesus US28.3	5		4
rhesus US28.4	1		0
rhesus US28.5	3	T T T G T T S T L T T I S T T S N A T S I T S N L S T T G N Q T	64
human US28	13		12
rhesus US28.1	2		4
rhesus US28.2	5		6
rhesus US28.3	5		7
rhesus US28.4	1		15
rhesus US28.5	5	A T T N A T T F S S T L T T S T N I S S T F S T V S T V A S N A	96
human US28	13		12
rhesus US28.1	5	S C N - - - - -	8
rhesus US28.2	7	- C H - - - - -	9
rhesus US28.3	8	T C H - - - - -	11
rhesus US28.4	6		21
rhesus US28.5	7	T C N S T I T T N I T T A F T T A A N T T A S S L T S I V T S L	128
human US28	13		37
rhesus US28.1	9	N V T L N A S A - - - - -	23
rhesus US28.2	10	N E S L A S Y G - - - - -	24
rhesus US28.3	12	N G T F E T F K - - - - -	26
rhesus US28.4	2		21
rhesus US28.5	9	A T T I E T T S F D Y D E S A E A C N I T D I V H T T R S V T V	160
human US28	38		68
rhesus US28.1	24	F L Y G V V F L F G S I G N E - L V E T I T W R R R I O C S G	54
rhesus US28.2	5	A M Y S V I C G L V G N E L L C V L V K - K R K L R Y S S	56
rhesus US28.3	7	T L Y S I A G I C G V T G N L L T L L F T - R R I H W F A N	57
rhesus US28.4	2	S A Y T V L V L G L L G N I V L S V L V V - K R K L K F P N	51
rhesus US28.5	1	- J Y T C V L F G L L G H F Y L Y W K N R R R I S F S	191
human US28	69		100
rhesus US28.1	55	D V Y F I N L A A A D L E V C T L P L W M Q Y L L D H N S L A	96
rhesus US28.2	56	D V Y E F H A S M A D L V S T V M L P L W L H Y V L N F A Q L S	87
rhesus US28.3	58	D I Y L N M I F T D F L V E T L P A W V Y Y L L N Y T Q L S	89
rhesus US28.4	2	D I Y F F N A S L A D V F A C M L P A W V N Y A L D S T Q L S	83
rhesus US28.5	2	D V L F H L M I T E F V F T L T I P V W A Y H L T T H G N L P	223
human US28	101		132
rhesus US28.1	97	S V P C T L L T A C F Y V A M E A S L C F I T E I A L D R Y Y A	117
rhesus US28.2	98	R G A C I S F S V T F Y V P L F V Q A W L L I S I A M E R Y S	118
rhesus US28.3	99	H Y A C I A L S F V F Y S I F I Q A D F M V A I E R Y R	120
rhesus US28.4	99	K F S C I T F T F G F Y V S L F I Q A W M L I V T L E R Y G	114
rhesus US28.5	99	G S W C I S L T F V F Y L T V F A B A F F Y L L I W D R Y S	255
human US28	101	H A S C V A M T A I E Y C A L E A S T V E L L V I D R C Y A	

FIG. 2 (Page 1 of 2)

human US28.133	I V Y M R Y R R V K Q - - - - - A C L F S I F W W I F A V I	157
rhesus US28.118	N L V W M A P I S V K - - - T A F K H C I G T - - - W I V S A F	143
rhesus US28.219	S L V K N K P L S V K - - - K A S V S C A G I - - - W I V S A F	144
rhesus US28.321	S L V W T A P I T R N - - - K A I A N C V I F - - - W I V S I F	146
rhesus US28.415	V I I C B H P L P V N L N Y S Q V I G - - - I S V W - - - L V A V	141
rhesus US28.556	F L L G T E K A N R R L L R N A V S G C M L M - - - W G E C F I	284
human US28.158	L A I P H E M V V T K - K D N O C - M T D Y D Y - L E V S Y P I	186
rhesus US28.144	V A S P I Y Y A Y R N S - H E C I L G N Y T W H I N E P I H T	175
rhesus US28.215	V S S P Y Y M F R S O H E T N S C I L G N Y T W H M N S P E R T	176
rhesus US28.347	L A A P I Y S F R N E - H E H O C I M R N Y T W S V G E T W H I	178
rhesus US28.442	L S A S P F I S I F N G - S V K O C - L G N M G - S I P S E S S A	170
rhesus US28.565	L A L P H F I E M K K - G T N V I C - V A E Y E P G L N N F Y V I	314
human US28.187	I L N V E L M L G A F V I P S V I S Y C Y Y R I S R I V A V S	218
rhesus US28.178	C M D V V I V W T F L A P V L V I E A S V K M - R R I T W G	206
rhesus US28.277	T M D A S I N I W S F V P A V T T L L I A R I Y V - C T S G	207
rhesus US28.379	A L D F L T I L F I M P V I T I A L S E K M A R W S T E G	210
rhesus US28.471	V L N L E V H L C S F W L P L I M S A N C Y I Q A K R R S P D	202
rhesus US28.515	F I N T E V N L C T E V L P A A A I I Y W Y L K L T K I A L K T H	346
human US28.219	Q S - R H K G R I V R V L I V V E L F E W L P Y H L T L F	249
rhesus US28.107	N T - R E N E K N S D I L E T V M T V F F W G P F N I Y V	237
rhesus US28.208	N K - K M N A R A S G L L E A M V I S M E F E G G L F N L N I F	236
rhesus US28.311	Y R - N I T S R T S L I L I L I T V A A G F W G P F H L E M F	241
rhesus US28.433	Q - - L H E L Y R C S L L E T T I T T Y A I V W F P E H L A L L	232
rhesus US28.547	E R E R H R L T S L N I V L A V V V E A T F W L P Y N I M L M	378
human US28.250	V D T L K I - L K W I S S S C E F E R S I K R A L I L T E S L A	280
rhesus US28.138	F D N I L O R Y Y D T - I N C D V E K I K H I M A M I S E A I V	268
rhesus US28.239	R D - I V S D T S E D N K D C T Y L K O E H F I M V G V A L V	269
rhesus US28.342	I E N V A G O I Y H I O K D C W Y L Q L R H L C S L M T E T L V	273
rhesus US28.433	I D A L I S - I S H V E P S S A L H W A - - S I V V T C K S F T	281
rhesus US28.579	M Y S L V H - M Q - L P W E C S S E K I L R R S L I T E S I A	408
human US28.281	F C H C C L N P L L Y V E V G T K F R Q E L H C L L A E F R O R	312
rhesus US28.169	Y F R G I T A P I I Y V G I S G R R E E I Y S L F R R O Y N	300
rhesus US28.270	Y G R A I F N P F M Y M C V S T R L R O E I K C L F M R I P Y E	301
rhesus US28.374	F L R S V F N P Y I Y M I S Y K R R O Q V R S L L K R T Q Y D	305
rhesus US28.462	F V Y A G I S P L V Y F T C C P T V R R E L L M S L R P F T	292
rhesus US28.489	L S H C C I N P I I Y L L E G P R C R S E E C H L I R C C F T R	440
human US28.313	I F S R D V S W - - Y H S M S F S R R S S P S R R E T S S D T L	342
rhesus US28.301	D L D P D A N - - - - Q F M I E L T S O G R S E N R A R O S	327
rhesus US28.322	T L D A E H A - - - - K I M V N L K N R N A N V P D P I C - - -	325
rhesus US28.326	A L D T T Q L - - - - A E T M O L K A K G V P V S D P A - - -	329
rhesus US28.433	I - - - - M I S S K I R G Y A P I K T O P L N I P D E P I	317
rhesus US28.541	I - C P H R S W S S I R A E T V S I S L S H S Q V S A S S E F D	471
human US28.343	S D E V C R V S Q I P	354
rhesus US28.328	E S N I V P I O P E E I C F W	339
rhesus US28.326	- - - P R E Y E S V L	333
rhesus US28.330	- - - P H O C E C E L	337
rhesus US28.348	D N K S P H L L N - E	327
rhesus US28.472	D N D V H D E L O F I	483

FIG.2 (Page 2 of 2)

human UL78	1	M S P S V E E T T S V T E S I M F A I V S F K H M G P F E G Y	31
rhesus UL78	1	- - - - -	0
human UL78	32	S M S A D R A A S D L L I G M F G S V S L V N E T E G C L	62
rhesus UL78	1	- M I T E R V L A G L L A G M T A A G S L V L L A V V - - M	28
human UL78	63	W V L R V T R P - - P V S V M I F T W N L V L S O F F S I L A	91
rhesus UL78	29	W L N M L D R A G M P M A V G H Y T G N L V L T Q V I G I F S	59
human UL78	92	T M L S K G I M L R G A L N L S L C R L V L F V D D V G L Y S	122
rhesus UL78	60	- M L A S K I V G M T S A A N M G F C G I V V F L E D T G L Y	89
human UL78	123	T A L F I F E L I L D R L S A I S Y G R D L W H H E - T R E N	152
rhesus UL78	90	V T S L L F M F M I L D R M A A F L N G R L F W R Q Q I K Q	120
human UL78	153	A G V A L Y A V A F A W V L S I V A A V P T A A T G S L D Y R	183
rhesus UL78	121	N L S T S V Y I L F C W V L G M A A A V P S A A V A A P N S	151
human UL78	184	W L G C Q I P I Q Y A A V D L T I K M W F L L G A P M I A V L	214
rhesus UL78	152	R W E R C E I P V S Y A A I D M I V K L W F V L L A P V V L	182
human UL78	215	A N V V E L A Y S D I R P H V W S Y V G R V C T F Y V T C L M	245
rhesus UL78	183	M A V I I Q S S Y H E R I W Y Y A R R V F M F Y T A C F	213
human UL78	246	L F V P Y Y C F R V - - - - - L R G V - L Q P A S A A G T G	269
rhesus UL78	214	V M M V P Y Y F V R V M L S D F A L V D I K T K T A N S D G C	244
human UL78	270	F G I M D Y V E L A T R T L L T M R L G I L P I F L A F F S	300
rhesus UL78	245	D S T F L D Y L N M F T H V I Y S F K L V V E A F L L H C	275
human UL78	301	R E P T K D L D D S F D Y L V E R C Q Q S C H G H F V R R L V	331
rhesus UL78	276	S I N P M E T L E E C L E R A D A E R Q S H S E A S Q G E R R	306
human UL78	332	Q A L K R A M Y S V E L A V C Y F S T S V R D V A E A V K K S	362
rhesus UL78	307	L P I N T C C I K L I E L I K Q Y V S T L S K A T I R D N S G E	337
human UL78	363	S S R C Y A D A T S A A V V T T T T S E K A T L V E H A E G	393
rhesus UL78	338	R A N L P E N A E D I G T T G S D Q L P T E V T V T P N S S A	368
human UL78	394	M A S E M C P G T T I D V S A E S S S V L C T D G E N T V A S	424
rhesus UL78	369	V F S T G G T V S P V	379
human UL78	425	D A T V T A L	431

FIG. 3

H UL33	1	M	-----	1
HUL33splice	1	M	OTIIHNSG	8
RhUL33	1	M	-----	1
RhUL33splice	1	M	AVTLRGGSPI NFKLMIVSHHNFH FHEIRLFQ	32
H UL33	2	R	-----	1
HUL33splice	10	R	-----	23
RhUL33	2	R	-----	1
RhUL33splice	33	R	SAIRPGGLWKPF FTTETNSILHINTTCNV	64
H UL33	2	T	GPLFAIRTEAVLN	33
HUL33splice	24	T	GPLFAIRTEAVLN	56
RhUL33	2	T	GPLFAIRTEAVLN	1
RhUL33splice	65	T	GPLFAIRTEAVLN	96
H UL33	34	Q	LLTNRVLGYSTPTIYMTNLYSTNFLTETVLP	66
HUL33splice	34	Q	LLTNRVLGYSTPTIYMTNLYSTNFLTETVLP	87
RhUL33	2	Q	LLTNRVLGYSTPTIYMTNLYSTNFLTETVLP	16
RhUL33splice	97	Q	LLTNRVLGYSTPTIYMTNLYSTNFLTETVLP	128
H UL33	66	E	VLSNOWLLPAGVASCKFLSVIYVSSCTVGF	87
HUL33splice	66	E	VLSNOWLLPAGVASCKFLSVIYVSSCTVGF	119
RhUL33	17	E	VLSNOWLLPAGVASCKFLSVIYVSSCTVGF	48
RhUL33splice	129	E	VLSNOWLLPAGVASCKFLSVIYVSSCTVGF	160
H UL33	66	A	TVAAIAADRYRV LHKRRAROSNRSTYML	129
HUL33splice	129	A	TVAAIAADRYRV LHKRRAROSNRSTYML	181
RhUL33	40	A	TVAAIAADRYRV LHKRRAROSNRSTYML	80
RhUL33splice	161	A	TVAAIAADRYRV LHKRRAROSNRSTYML	192
H UL33	130	E	FWLAGGPFVPAAYVTTVMHHDANDTNSEN	161
HUL33splice	162	E	FWLAGGPFVPAAYVTTVMHHDANDTNSEN	163
RhUL33	81	E	FWLAGGPFVPAAYVTTVMHHDANDTNSEN	110
RhUL33splice	182	E	FWLAGGPFVPAAYVTTVMHHDANDTNSEN	222
H UL33	162	G	HATCVLYPFVAEEVHTVLLSWKVLLFMVWGAA	193
HUL33splice	162	G	HATCVLYPFVAEEVHTVLLSWKVLLFMVWGAA	216
RhUL33	111	G	HATCVLYPFVAEEVHTVLLSWKVLLFMVWGAA	141
RhUL33splice	223	G	HATCVLYPFVAEEVHTVLLSWKVLLFMVWGAA	253
H UL33	194	P	VIMMTWFYAFFYSTVORTS	226
HUL33splice	216	P	VIMMTWFYAFFYSTVORTS	247
RhUL33	142	P	VIMMTWFYAFFYSTVORTS	172
RhUL33splice	264	P	VIMMTWFYAFFYSTVORTS	284
H UL33	226	M	SLSEVALOTPYVSLMIFNSYATTAWPMQCE	267
HUL33splice	244	M	SLSEVALOTPYVSLMIFNSYATTAWPMQCE	279
RhUL33	173	M	SLSEVALOTPYVSLMIFNSYATTAWPMQCE	204
RhUL33splice	286	M	SLSEVALOTPYVSLMIFNSYATTAWPMQCE	316
H UL33	258	H	TLRRTIGTLARVPHLHCLINPILYALLGH	289
HUL33splice	260	H	TLRRTIGTLARVPHLHCLINPILYALLGH	311
RhUL33	205	H	TLRRTIGTLARVPHLHCLINPILYALLGH	236
RhUL33splice	317	H	TLRRTIGTLARVPHLHCLINPILYALLGH	348
H UL33	290	D	FLQRMHQCFRGQLDRAFLRS	321
HUL33splice	312	D	FLQRMHQCFRGQLDRAFLRS	343
RhUL33	237	D	FLQRMHQCFRGQLDRAFLRS	268
RhUL33splice	349	D	FLQRMHQCFRGQLDRAFLRS	380
H UL33	322	T	NLAAGNNSOSVATSLDTN	353
HUL33splice	344	T	NLAAGNNSOSVATSLDTN	376
RhUL33	289	T	NLAAGNNSOSVATSLDTN	327
RhUL33splice	361	T	NLAAGNNSOSVATSLDTN	409
H UL33	364	F	NFPGSGTWKGGOKTASNDYTKIPHLRSOSH	386
HUL33splice	376	F	NFPGSGTWKGGOKTASNDYTKIPHLRSOSH	407
RhUL33	298	F	NFPGSGTWKGGOKTASNDYTKIPHLRSOSH	324
RhUL33splice	410	F	NFPGSGTWKGGOKTASNDYTKIPHLRSOSH	436
H UL33	388	N	LSGV	390
HUL33splice	408	N	LSGV	412
RhUL33	325	N	LSGV	329
RhUL33splice	437	N	LSGV	441

FIG. 4

Fractalkine Homologous Competition
on Rh-CMV Infected Fibroblasts

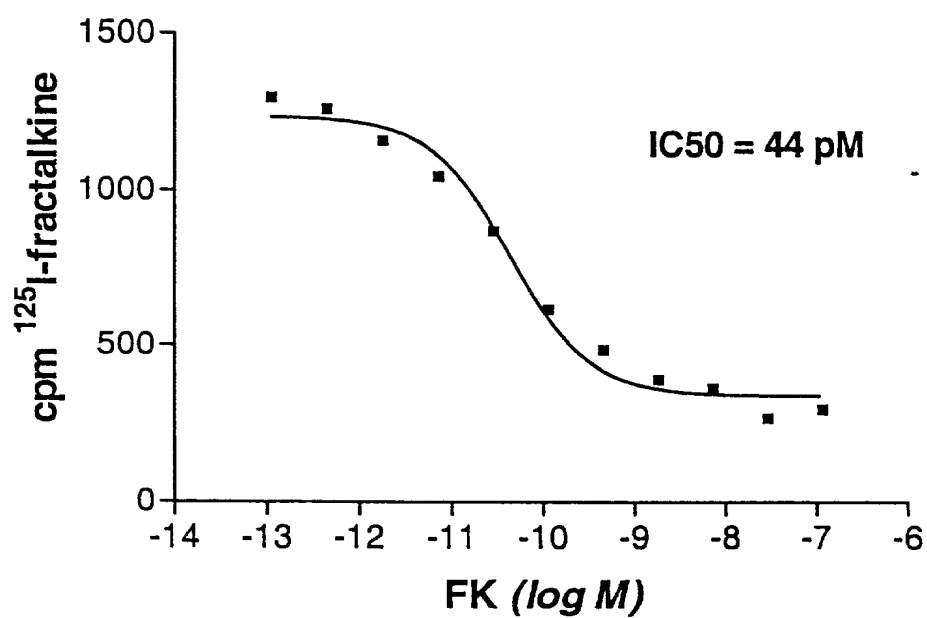


FIG. 6

Sucrose Virions/CX3C binding

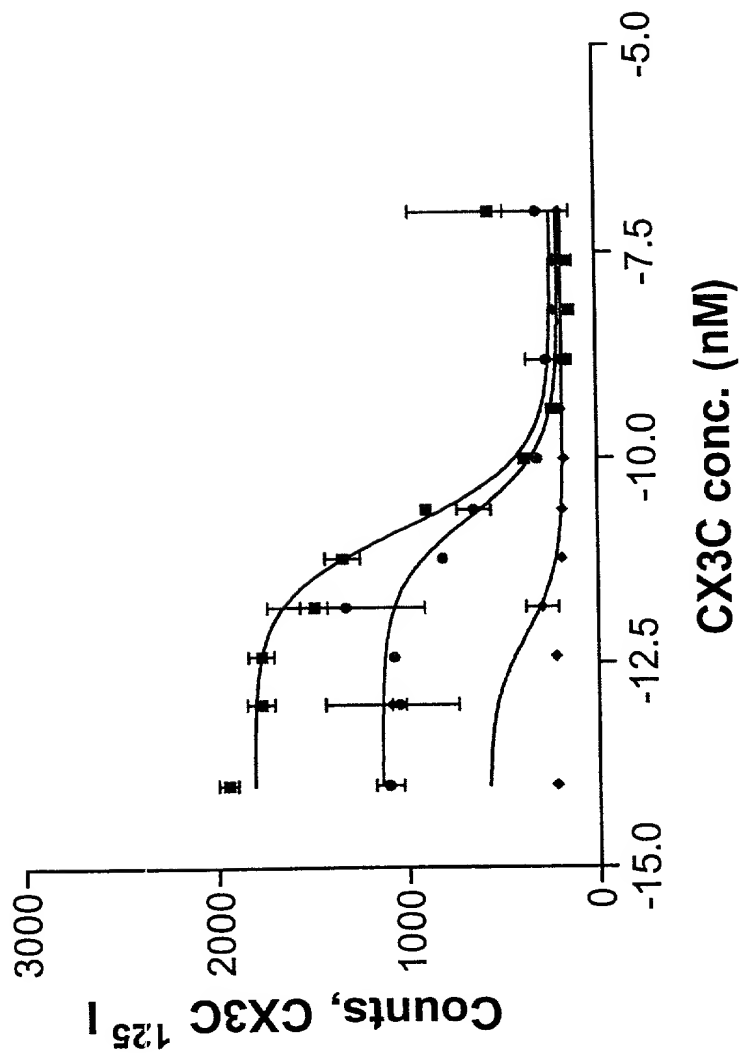


FIG. 7